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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,218	08/21/2006	Steve Bae	2060-01	1338
53706 IPLA P.A. 3580 WILSHIRE BLVD. 17TH FLOOR LOS ANGELES, CA 90010	7590 11/18/2009		<div>EXAMINER</div> <div>VAUGHAN, MICHAEL R</div>	
			<div>ART UNIT</div> <div>2431</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE</div> <div>11/18/2009</div>	<div>DELIVERY MODE</div> <div>PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/598,218

Applicant(s)

BAE ET AL.

Examiner

MICHAEL R. VAUGHAN

Art Unit

2431

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on **10/3/09** has been entered.

Claims 2 and 4-6 have been canceled. Claim 1 has been amended. Claims 1 and 3 remain.

Response to Amendment

Claim Objections

Claim 1 is objected to because of the following informalities: "the service system table" lacks antecedent basis. It is assumed to refer to the extended system service table" but clarification is required.

Response to Arguments

Applicant's arguments filed 10/3/09 have been fully considered but they are not persuasive. The following interpretation of the prior art is solely based on the current set of claims and arguments submitted by the Applicant. It is not the only possible interpretation of the prior art and may be altered when/if the claims and/or arguments change.

In response to Applicant's first argument <1>, an allegation of the difference between Bowlin and claim 1 is made. However, the disputed feature, handling of the write operation for an authorized application in a disk drive was relied upon by Mayer (0094). As understood from claim 1, an authorized application has read/write privileges in the VSD drive and read only privileges in the disk drive. The unauthorized application has no privileges in the VSD and a read/write privileges in the disk drive. The only difference between this scenario and that of Bowlin is authorized programs do not have write access in the disk drive. This feature is taught by Mayer and is obvious to combine with Bowlin for the reasons mentioned in the last office action.

In response to applicant's argument <2> that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the OS provides a function to the extended system service table, rather than a conventional system service table and only an authorized application includes functions of changing and restoring a function so that the authorized application can point at the corresponding function in the extended system service table) are not recited in the

rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim 1 does not couple or define the relationship of the access control module, extended system service table, nor the extend system table to the OS. There are no specific claimed limitations which require more than taught by Bowlin. Bowlin teaches a filter which may or may not be part of the OS (0034). Its functionality is to handle file access requests from applications (0035) and determine if and what type of access to the file will be granted to the application. If access is denied the file access function is stopped. While the names of extended system service table and extended system table are used in the claim, their functions are taught by the filter and OS of Bowlin. With respect to the service table, it is well known that computers use instruction codes which are descriptors of a corresponding function. The extended system table is merely responsible for preventing operation of a function, which is done by the filter of Bowlin.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over USP Application Publication 2002/0099944 to Bowlin in view of USP Application Publication 2003/0159070 to Mayer et al., hereinafter Mayer.

As per claim 1, Bowlin teaches an access control system, comprising:
a Virtual Secure Disk (VSD) image file module [virtual directory] occupying a certain space of a hard disk in a file form (0039);

a VSD drive [safe zone] for processing security-sensitive files within the VSD image file module (0039);

a VSD file system module for allowing an operating system to recognize the VSD drive as a separate disk volume at a time of access (0039) to the security-sensitive files within the VSD image file module (0040); and

an access control module [filter] for determining access by determining whether an access location is a disk drive or the VSD drive (0035) and the application module has been authorized to access a file, which is stored on the hard disk [not in safe zone], to perform tasks in the application module (0040)

wherein an authorized application module is configured to access the VSD drive for write and read operations [0043 and 0045; application are given permissions to files in the safe zone],

wherein an unauthorized application module is configured to access the disk drive for write and read operations [files not in the safe zone are accessible to unauthorized application; 0026], and

wherein the unauthorized application module is not allowed to access the VSD drive (0045 and 0026).

wherein the access control module comprises:

an extended system service table [database] for allowing the operation of a corresponding function to be performed when it is pointed at by a descriptor [0035; requesting of an access to a file];

and an extended system table for changing a function, which is requested of the service system table by the application module, to prevent operation of the function, determining whether a space in which a corresponding task is performed is the disk drive or the VSD drive, determining whether access to the corresponding file by the application module has been authorized, and providing the unchanged function to the extended system service table or stopping the operation of the function according to results of the determination [0047]. Bowlin teaches that access attempts within the safe zone by authorized application are denied. Therefore the function is stopped. If it is determined that the function is made by an authorized application to a file in the safe zone it is permitted. Access is based on type of application and where the file resides.

Bowlin is silent in teaches an encryption and decryption module for encrypting and decrypting data input/output between the VSD image file module and the VSD drive and the authorized application module is configured to access the disk drive for a read operation only. Mayer teaches that protected files can be encrypted for certain applications so that only that application may access them (0102, last sentence on page 10). This would take Bowlin system one step further for securing files to specific

applications. Bowlin teaches that files in the safe zone (virtual drive) can be given access to specific applications. If then the files were encrypted, this would increase the security of the system. Bowlin teaches encrypting the database which divulges the permissions of the file so encrypting the files is a logical step. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to encrypt the files in the safe zone (virtual drive) because it would further protect those sensitive files. Mayer also teaches the segregating application in to their environment. Specifically Mayer teaches that application should have full access to their own environment but read only access to other share environments [0094; first sentence]. This is obvious if one considers what would happen if an authorized application is compromised. Preventing a compromised application from copying sensitive information into a public domain would be catastrophic for an organization. Whether by, malicious intent or accidental, preventing leaking of sensitive data is critical. Modifying the system of Bowlin with this functionality secures the authorized application from writing the file in the safe zone to an area outside the safe zone. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate this teaching into the system of Bowlin for the reasons just mentioned.

As per claim 3, Bowlin teaches wherein the VSD image file module virtually occupies the hard disk so as to allow the operating system to recognize the data as being assigned to a certain space of the hard disk without performing physical

assignment for storing the data on the hard disk, so that the authorized application module can physically assign the data to the space [virtual directory; 0039].

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. VAUGHAN whose telephone number is (571)270-7316. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:00pm, EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. R. V./

Examiner, Art Unit 2431

/William R. Korzuch/

Supervisory Patent Examiner, Art Unit 2431